

## **HEAT EXCHANGER PLENUMS FOR GO-KARTS**

### **ABSTRACT**

Heat exchanger systems for go-karts include a heat exchanger and a plenum that  
5 channels air to the heat exchanger to increase cooling efficiency while reducing drag.  
The plenum has an intake with an area less than a cross-sectional area of a portion of the  
plenum where the heat exchanger is located to allow velocity air pressure to decrease  
while increasing static air pressure. The plenum and heat exchanger may be located at  
various sites on the go-kart including in front of the driver position, beside the driver  
10 position, and behind the driver position. Additionally, a centrifugal fan may be included  
in the plenum to increase the velocity air pressure to overcome internal losses. Also, a  
plenum body portion may be included on the rear side of the heat exchanger to channel  
air away from the heat exchanger.